

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,173,281 B2  
APPLICATION NO. : 10/692759  
DATED : February 6, 2007  
INVENTOR(S) : Yoshiharu Hirakata et al.

Page 1 of 3

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**Claim 13, Column 31 lines 25-44** should read --A display device comprising:  
a first substrate;  
a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;  
an interlayer insulating film over the thin film transistor;  
a first alignment film over the interlayer insulating film;  
a second substrate;  
a plurality of spacers over the second substrate;  
a second alignment film on the plurality of spacers and over the second substrate; and  
a liquid crystal material interposed between the first alignment film and the second alignment film;  
wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, and a center portion between the first end and the second end,  
wherein a width of the second end is larger than a width of the center portion,  
wherein a taper portion is formed at the second end, and  
wherein a height of the spacer is 0.5 $\mu$ m to ~~110~~ 10 $\mu$ m.--

**Claim 45, Column 34 lines 6-29** should read --A display device comprising:  
a first substrate;  
a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;  
an interlayer insulating film over the thin film transistor;  
a first alignment film over the interlayer insulating film;  
a second substrate;  
a conductive film over the substrate;  
a plurality of spacers on the conductive film;  
a second alignment film on the plurality of spacers and on the conductive film; and  
a liquid crystal material interposed between the first alignment film and the second alignment film;  
wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate,  
wherein a contact surface between the second alignment film and the spacer is continuously connected to a contact surface between the second alignment film and the conductive film,  
wherein a taper portion is formed at the second end, and  
wherein a height of the spacer is 0.5 $\mu$ m to ~~110~~ 10 $\mu$ m.--

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Page 2 of 3

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**Claim 77, Column 36 line 60 - Column 37, line 14** should read --A display device comprising:  
a first substrate;  
a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;  
an interlayer insulating film over the thin film transistor;  
a first alignment film over the interlayer insulating film;  
a second substrate;  
a plurality of spacers over the second substrate;  
a second alignment film on the plurality of spacers and over the second substrate;  
a liquid crystal material interposed between the first alignment film and the second alignment film;  
wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, a center portion between the first end and the second end, and a lower portion between the center portion and the second end,  
wherein an angle between a tangent plane at a center portion and a surface of the second substrate is larger than an angle between a tangent plane at a lower portion and the surface of the second substrate, and  
wherein a height of the spacer is 0.5 $\mu$ m to ~~110~~ 10 $\mu$ m.--

**Claim 107, Column 39 lines 47-65** should read --A display device comprising:  
a first substrate;  
a plurality of pixels arranged in a matrix, each of which comprises a thin film transistor over the first substrate;  
an interlayer insulating film over the thin film transistor;  
a first alignment film over the interlayer insulating film;  
a second substrate;  
a plurality of spacers over the second substrate;  
a second alignment film on the plurality of spacers and over the second substrate; and  
a liquid crystal material interposed between the first alignment film and the second alignment film;  
wherein each of the plurality of spacers has a first end, a second end between the first end and the second substrate, and a center portion between the first end and the second end,  
wherein a width of the second end  $L_2$  and a width of the center portion  $L_1$  are set in the range of  $1 < L_2 / L_1 < 2.5$ , and

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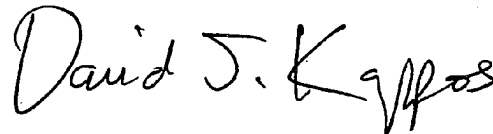
Page 3 of 3

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wherein a height of the spacer is 0.5 $\mu$ m to ~~110~~ 10 $\mu$ m.--

Signed and Sealed this

Twenty-fifth Day of August, 2009

A handwritten signature in black ink, reading "David J. Kappos". The signature is written in a cursive, flowing style with a large initial "D" and a stylized "K".

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David J. Kappos  
*Director of the United States Patent and Trademark Office*